
# In the new world of personal computers there is just one that is known as the best: the PET computer

The PET™ home computer by Commodore is a creature of many faces, only a few of which you will see on the next page.

As many faces as you see, the PET has even more. Its applications are limited only by the user's needs.

The future of the PET is virtually unlimited; its present capabilities are already many and impressive.

As a personal computer, the PET can teach languages and mathematics; play games; create graphic designs; answer the telephone, log calls, and dial numbers; store meal recipes and change number of portions; maintain budgets, personal records and checkbooks; operate appliances and temperature controls.

*Note: while the PET indeed has all these capabilities, some are not yet here: the phone capabilities will not become a reality until the modem hardware is completed. But that should be before the year is over.*

As a management tool, it delivers the information the executive needs, in the form he can use, and available to him alone. Trend analyses charts and graphs can be almost instantly available.

The professional may use the PET for maintaining appointment schedules, recording income and expenditures and filing all the specialized information and forms he may need to make his work more efficient—from medical records for a doctor to income tax computations for an accountant.

The engineer, mathematician, physicist has a tool far superior to the very best programmable calculators yet developed . . . at a cost that is comparable . . . and with almost infinitely greater versatility.

And the businessman has a computer that can maintain inventories, keep payroll records, operate accounts payable and receivable, issue checks, handle correspondence.

*Again, some of these capabilities will involve hardware not yet available, but which should be ready fairly soon.*

The PET is a computer. But a very different computer from any you have ever seen before. The PET is a personal computer; it stands for **P**ersonal **E**lectronic **T**ransactor. It is very compact, measuring just 16.5" wide by 18.5" deep and 14" high, and quite portable; it can be carried and used anywhere. It operates on ordinary current available in any office, home or factory.

The PET has a television screen, a keyboard as simple to use as a typewriter and a self-contained cassette recorder which is the source for programs and for storing data in connection with these programs. And it has, in its standard configuration, an 8K user memory. (This is in addition to the 14K operating system resident in the computer.)

Although the PET is built to the highest standard in the industry, it may perhaps require service in its lifetime. You'll find the PET surprisingly easy to service. Modular components, standard TV circuitry and a basic cassette assure that a TV serviceman with PET product knowledge will be able to render satisfactory service. Moreover, the self-diagnosing computer board will tell the serviceman if it needs replacement. And Commodore will ultimately maintain a network of Authorized Dealer service centers as well as its own service points.

Because the PET is a personal computer, it uses BASIC language, the easiest to learn and simplest to program. So simple that many people without prior computer knowledge will find it surprisingly easy to begin rudimentary programming after only a few hours and, with diligent application, could become quite facile. Because of the widespread use of BASIC, a large number of programs are already available from various sources, including PET user clubs springing up in many places.

There is direct access to the machine language resident in the ROM through the keyboard so that—as one example—a particular POKE command will convert 26 graphic characters to lower case letters.

The Commodore PET. So simple to learn and to use. Yet the PET can also boast of advanced screen editing—allowing complete and instant insertion, deletion, substitution of characters and full cursor movement.

This is at the heart of the PET: It is a wonderfully simple device to master; really as easy to use as an advanced calculator. Yet it has the power and versatility of the most advanced computers.

The PET is surprisingly inexpensive, as a personal computer should be. The PET is a product of Commodore, a company that has developed through the years a reputation for value and innovation in calculators and electronic watches.

Quite portable, very affordable and unbelievably versatile, the PET computer may very will be a lifetime investment.

Additional programs, additional memory boards and, through the IEEE Interface, a telephone interface system, a printer and a floppy disc drive are among the components that are being developed for those users who may perceive a need.

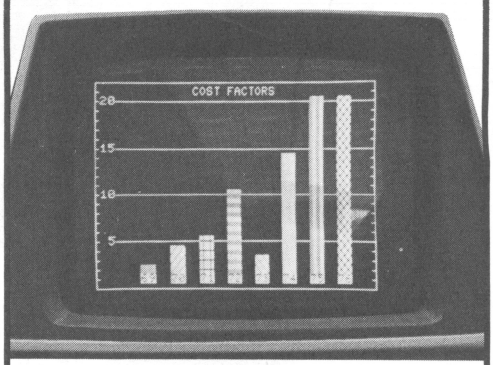
A second cassette is already available through a built-in interface.

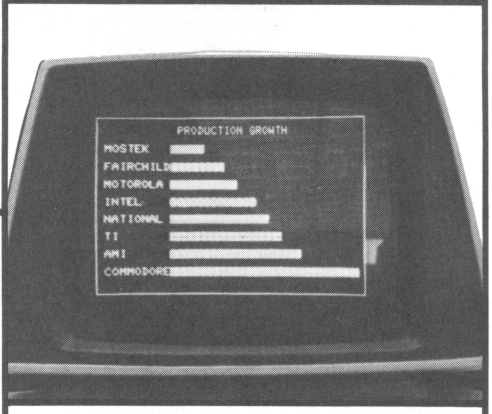
An extra 8 bit user-controllable port is also built-in for "do-it-yourself" attachments . . . such as a music synthesizer, speakers, a light controller . . . for fun and games.

# The Many Faces of the PET

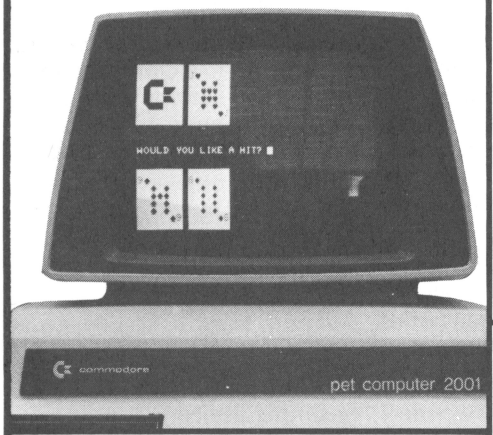
## Amortization Chart


## Bar Graphs

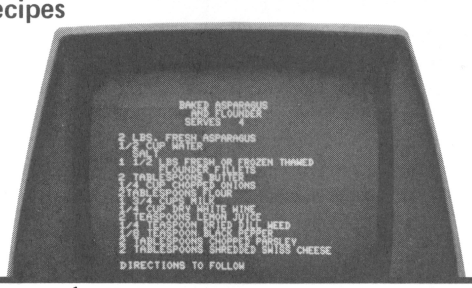


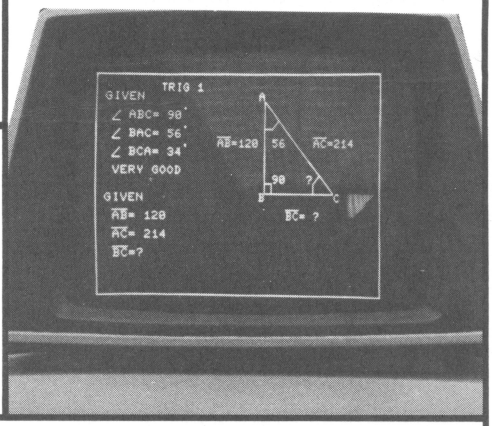

## Black Jack




## Recipes



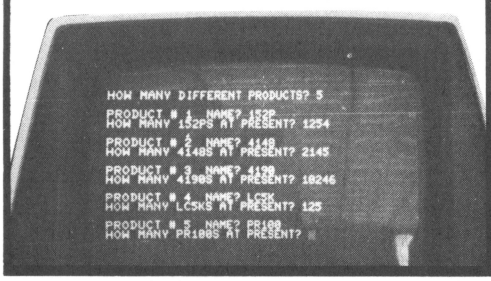

## Teaching Trigonometry

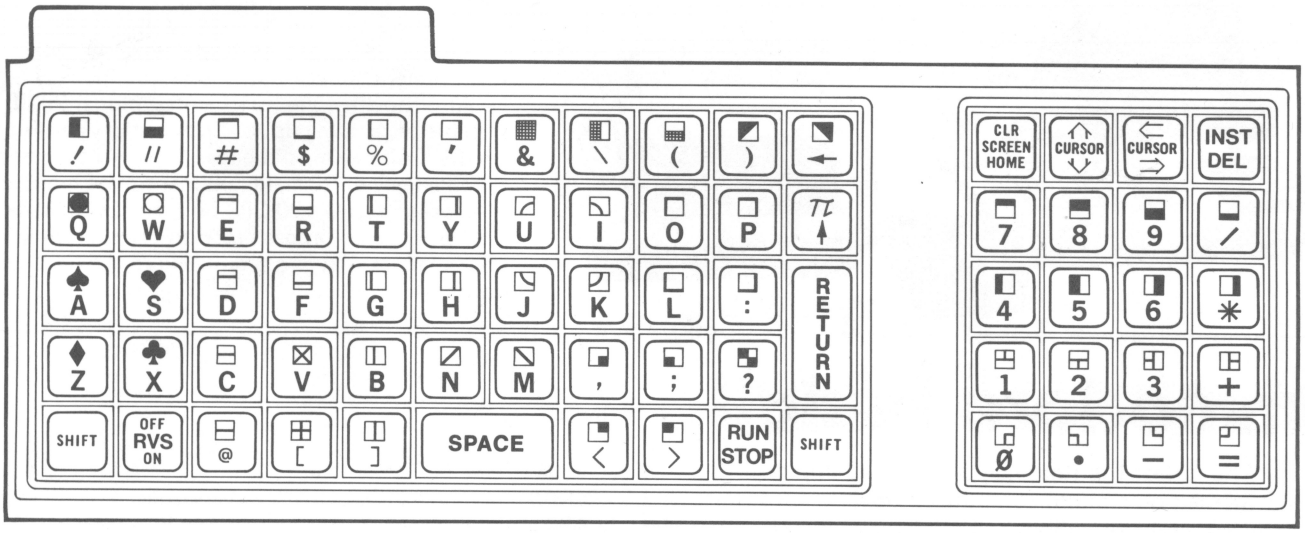



## Backgammon


## Moon Landing


## Inventory Control






# the PET keyboard

The PET keyboard consists of 73 keys. There are the usual alphanumerics (A-Z and 0-9) found on typewriters and calculators and many computers.

But the PET has something more: 64 graphic characters. The graphics can be used for plots, for fun and games, or for artwork.

There are also special screen and keyboard control keys which allow the moving of the cursor in four directions, the reversing of characters and background, the inserting and deleting of characters. Shift keys and a run/stop key are also provided to facilitate keyboard operations.

# specifications

**Dimensions:** 16½" wide by 18½" deep. 14" overall height
**Weight:** 44 lbs

### MEMORY

**Random Access Memory** (user memory): 4K (or 8K optional) are internal, expandable to 32K bytes of which 24 (or 28) are external

**Read Only Memory** (operating system resident in the computer): 14K bytes

8K—BASIC interpreter
4K—Operating system
1K—Diagnostic routine
1K—Machine language monitor

### VIDEO DISPLAY UNIT

9" enclosed, black and white, high-resolution CRT
1000 character display, arranged 40 columns by 25 lines
8 x 8 dot matrix for characters and continuous graphics
Automatic scrolling from bottom of screen
Winking cursor with full motion control
Reverse field on all characters (white on black or black on white)
64 standard ASCII characters; 64 graphic characters

### KEYBOARD

9½" wide x 3" deep; 73 keys
All 64 ASCII characters available without shift. Calculator style numeric key pad
All 64 graphic and reverse field characters accessible from keyboard (with shift)
**Screen Control:** Clear and erase
**Editing:** Character insertion and deletion

### CASSETTE STORAGE

Fast Commodore designed redundant-recording scheme, assuring reliable data recovery
Cassette drive modified by Commodore for much higher reliability of recording and record retention
High noise immunity, error detection, and correction
Uses standard audio cassette tapes
Tape files, named

### OPERATING SYSTEM

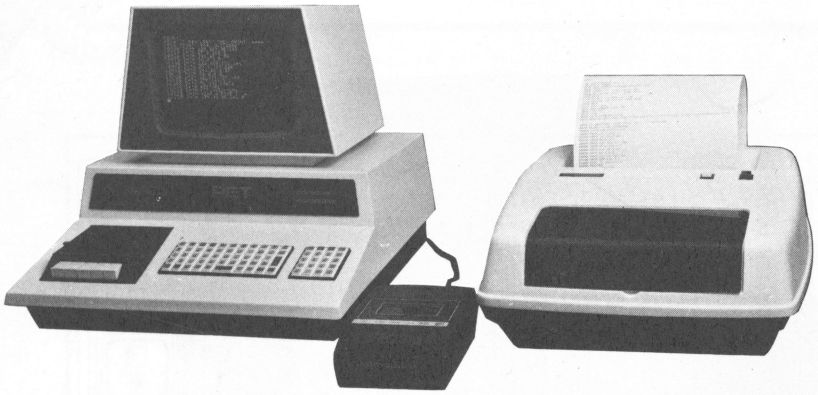
Supports multiple languages (BASIC resident)
Machine language accessibility
File management in operating system
Cursor control, reverse field, and graphics under simple BASIC control
Cassette file management from BASIC
True random number generation or pseudo random sequence

### INPUT/OUTPUT

All other I/O supported through IEEE-488 instrument interface which allows for multiple intelligent peripherals
All I/O automatically managed by operating system software
Single character I/O with GET command
Easy screen line-edit capability
Flexible I/O structure allows for BASIC expansion with intelligent peripherals

### BASIC INTERPRETER

Expanded 8K BASIC; 20% faster than most other 8K BASICS
Upward expansion from current popular BASIC language
Strings, integers and multiple dimension arrays
10 significant digits; floating point numbers
Direct memory access through PEEK and POKE commands



**PET and Peripherals.** The external cassette (the PET CASSET™ model C2N) is shown connected to the cassette port and ready for file management.

Also shown is the PET Printer, model 2020, capable of printing up to 80 characters per line on 8½" roll or fan-fold paper. It prints the entire complement of PET alphanumerics and graphics at approximately 120 CPS on a 7x8 dot matrix. The unit can be programmed to print extended characters as well as a unique character (such as a corporate logo).

# commodore basic

The fastest full floating-point BASIC implemented on a micro-computer. Allows communication directly from BASIC to IEEE-488 standard devices, cassettes, display, and keyboard built into PET. Accurate built-in clock is settable and readable from BASIC in decimal or string value. Full command set, including:

**Standard Dartmouth BASIC Statements***

LET READ PRINT DATA IF
THEN FOR NEXT DIM END
GOTO

**Extended BASIC Statements**

RESTORE REM GET GOSUB DEF
RETURN STOP STEP INPUT FN
ON . . . GOTO ON . . . GOSUB

**Scientific Functions**

SGN INT ABS SQR RND SIN
COS TAN ATN LOG EXP π

**Logical Operators**

AND OR NOT

**Operation Commands**

RUN NEW CLR LIST CONT FRE

**Formatting Functions**

TAB POS SPC

**Machine Level Statements**

PEEK POKE

Allow the user to examine and store at specific memory locations.

USR SYS

Link BASIC to machine language subroutines with parameter passing or developmental subsystems.

WAIT

Monitors status of a memory location such as an I/O port until specified bits are set.

**String Functions**

LEFT$ RIGHT$ MID$

Returns substrings (of specified length and position) of string acted upon.

*Note: Arrays are currently limited to 255 elements.

CHR$ ASC

CHR$ returns a character, given a numeric code.
ASC returns a numeric code corresponding to a character.

LEN

Returns the length of a string.

VAL STR$

Convert decimal values to numeric strings and vice-versa.

**Extended I/O Statements**

OPEN CLOSE

Control association of a logical file number to a physical device and, optionally, a file name on the device.

SAVE LOAD VERIFY

Store and retrieve a program, with optional file name, on a physical device. Load allows for program overlay, VERIFY compares contents of memory to stored program.

PRINT# INPUT# GET#

Allow communication with logical device numbers other than keyboard or screen. GET# inputs one character.

CMD

Permits communication with multiple devices simultaneously.

**Example of I/O Operations**

**Tape-to-tape file copy**

```
10 OPEN 5,1,0, "OLD FILE"
20 OPEN 6,2,1, "NEW FILE"
30 INPUT#5,A$
40 IF ST AND 64 GO TO 70
50 PRINT#6,A$
60 GO TO 30
70 CLOSE 5
80 CLOSE 6
```

Program locates "OLD FILE" on tape #1, writes file header for "NEW FILE" on tape #2, then copies tape #1 to #2 until it encounters an EOF on #1, and then writes an EOF on #2.

**Variables**

TYPES: Real Integer (%) String ($)

NAMES: Variable names are uniquely given as a letter or a letter followed by a letter or a digit.

**Special Variables**

TI TI$ Time of day

ST Status word for I/O operations

commodore

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